What is claimed is:

1. An improved method for the aerobic thermophilic treatment of organic material of the type in which air is passed through organic matter contained in a reactor, the improvement comprising at least a portion of the air that has passed through the organic matter in the reactor being captured and again passed through the organic matter.

2. The method according to claim 1 in which the reactor is covered, and wherein ammonia is removed from the air that has passed through the organic matter, before that air is released to the atmosphere.

3. The method according to claim 1 wherein ammonia is removed from the air before it is again passed through the organic matter.

4. The method according to claim 1 further comprising circulating water through the reactor to create hot water at at least about 50 °C.

5. The method according to claim 4 further comprising circulating water through the reactor to create hot water at at least about 55 °C.

6. The method according to claim 1 wherein at least about 40% of the air circulated through the reactor pit is recycled.

7. The method according to claim 1 wherein at least about 60% of the air circulated through the reactor pit is recycled.

8. A method of heating a fluid, the method comprising circulating the fluid through an aerobic thermophilic treatment treatment reactor of the type in which air is passed through organic matter contained in a reactor, in which at least a portion of the air that has passed through the organic matter in the reactor is captured and again passed through the organic matter.

9. The method according to claim 8 in which the reactor is covered, and wherein ammonia is removed from the air that has passed through the organic matter, before that air is released to the atmosphere.

10. The method according to claim 8 wherein ammonia is removed from the air before it is again passed through the organic matter.

11. The method according to claim 8 further comprising circulating water through the reactor to create hot water at at least about 50 °C.

12. The method according to claim 11 further comprising circulating water through the reactor to create hot water at at least about 55 °C.

13. The method according to claim 8 wherein at least about 40% of the air circulated through the reactor pit is recycled.

14. The method according to claim 13 wherein at least about 60% of the air circulated through the reactor pit is recycled.

15. The method according to claim 14 wherein at least about 80% of the air circulated through the reactor pit is recycled.

16. An improved system for the aerobic thermophilic treatment of organic material of the type comprising a reactor for containing the organic material, and an aeration system for passing air through the organic material contained in the reactor, the improvement comprising a recirculation system for capturing at least a portion of the air that has passed through the organic material, and recycling it to the aeration system.

17. The improved system according to claim 16, further comprising a system for removing ammonia from the air that has passed through the organic material before releasing it to the atmosphere.

18. The improved system according to claim 16, further comprising a system for removing ammonia from the air that has passed through the organic material before recycling it to the aeration system.

19. The improved system according to claim 16 wherein the air recirculation system recycles at least about 40% of the air circulated through the reactor pit.

20. The improved system according to claim 19 wherein the air recirculation system recycles at least about 60% of the air circulated through the reactor pit.

21. The improved system according to claim 20 wherein the air recirculation system recycles at least about 80% of the air circulated through the reactor pit.